CONCERTED ACTION
ENERGY EFFICIENCY
DIRECTIVE

Core Theme Series Report:
Concerted Action Energy
Efficiency Directive

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Consumer information programmes, training and certification of professionals

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Content

1 Introduction and context

The Concerted Action for the Energy Efficiency Directive (CA EED) was launched in spring 2013 in order to support the effective implementation of the Directive on Energy Efficiency (2012/27/EU). The CA EED, which is financed under the Intelligent Energy Europe Programme of the European Commission, helps countries learn from each other and build on successful approaches when implementing the Directive.

This report summarises work carried out between January 2013 and March 2014 by the CA EED on consumer information programmes, training and certification of professionals.

The objective of the work was to share experiences and present best practice from existing certification and qualification schemes as well as policies and strategies to promote behavioural change. All participating Member States (MS) of the Concerted Action contributed to the work, which helped to build understanding of the challenges related to implementation of the consumer information and professional certification provisions of the Energy Efficiency Directive (EED).

In addition, external experts from research institutes, business and international organisations were invited to present relevant findings.

2 Energy audits: obligations, minimum criteria and qualification, accreditation and certification schemes

CA EED participants discussed the issue of how to guarantee the high quality of energy audits. A large majority of the participants found that accreditation or similar schemes are a must to obtain high quality. One recommendation is that Member States that have not yet done so should look into the issue of certification/accreditation/qualification of energy auditors and other energy service providers.

Under the EED, there are provisions related to certification, accreditation or qualification schemes for providers of energy services, inter alia energy audits. There is therefore a close link to the requirement for large enterprises to undergo regular energy audits; this is the reason why a joint working group was held with the CA EED theme "Energy services and ESCOs, energy auditing, solving administrative barriers".

According to the Energy Efficiency Directive, energy audits can be carried out by qualified and/or accredited experts according to qualification criteria. The audits may be carried out by in-house experts or energy auditors, provided that the Member State concerned has put in place a scheme to assure and check their quality. There is a further option whereby audits are implemented and supervised by independent authorities under national legislation.

Energy auditors are one of the categories of energy service providers that fall under the requirements on certification in Article 16 of the Directive. This article states that, in a case where a Member State finds the national level of technical competence, objectivity and reliability is insufficient, it shall ensure that, by 31 December 2014, certification and/or accreditation schemes and/or equivalent qualification schemes are being set up.

Audits are carried out in most Member States by qualified or accredited/certified experts; the option of audits implemented or supervised by independent authorities under national legislation is less common.

A variety of methods have been adopted to assure the quality of energy audits. Auditor training, guidelines, tools and templates are widespread and accreditation/certification procedures are also used by a large number of Member States.

Most MS have an existing scheme or programme for qualification and/or certification of energy auditors. For those MS that are planning to launch a qualification and/or certification scheme, there is a clear need for new or improved systems for training of energy auditors, especially in the buildings and transport sectors.

The conclusions based on the input from CA EED participants were:

- Audits are to a large extent available in the household, buildings and industry sectors.
- Audits are less common in logistics (transport), energy and agriculture. This may be a symptom of a general lack of consideration of the potential benefits of ad hoc energy audits in these sectors or of the specificity of these sectors.
- In most MS, audits are being carried out by qualified or accredited/certified experts.
- It is less common for audits to be implemented or supervised by independent authorities under national legislation.
- The quality of energy audits is guaranteed through a wide range of measures including auditor training, auditing guidelines, tools and templates for auditors, random checks and sanctions for non-conformity.
- Accreditation/certification procedures are used in approximately 2/3 of MS for assuring the high quality of audits.

Recommendation

Member States should consider certification, maybe combined with other methods (e.g., quality controls), to ensure the high quality of energy audits.

Good practice examples

Energy auditing scheme in the Czech Republic

An energy auditing scheme in the Czech Republic, introduced in 2001, which has led to more than 350 energy auditors and more than 1500 energy audits being prepared annually. The Ministry of Industry and Trade (MIT) is the certification body for energy auditors and the Association of Energy Auditors together with the Czech Chamber of Certified Architects, Engineers and Technicians are responsible for the education and training of energy auditors.

www.ca-eed.eu/good-practices/good-practice-factsheets/energy-services/energy-audits-czech-republic

Energy audits in energy intensive facilities in Portugal

A mandatory system for energy audits in energy intensive facilities in Portugal with minimum requirements for the auditors. The minimum requirements for the auditors include a degree in engineering, appropriate professional experience and availability of equipment for measurement and control. Appropriate professional experience is at least 5 years of experience in installations whose energy consumption is higher than 500 toe/year, or 3 years of specific experience in energy auditing and consulting, or at least 2 years of relevant professional experience in energy auditing and consulting and having a specialist skill.

www.ca-eed.eu/good-practices/good-practice-factsheets/energy-services/energy-audits-portugal

3 Policies and national strategies to promote behavioural change

The purpose of this topic was to exchange experiences related to Member States' policies and national strategies to promote behavioural change. There was an exchange of information on planned measures as well as an exchange of experiences of existing measures on behavioural change and of information campaigns linked to the roll-out of smart meters.

According to EED Article 12, Member States shall promote the efficient use of energy by small energy customers, including domestic customers. Member States are free to choose one or more instruments from a range of measures to fulfil this requirement and the measures may be part of a national strategy. In addition, EED Article 17 states that Member States shall, with the participation of stakeholders, including local and regional authorities, promote suitable information, awareness-raising and training initiatives to inform citizens of the benefits and practicalities of taking energy efficiency improvement measures.

The purpose of this topic was to present insights on how MS intend to implement Article 12 and to present examples of successful experiences and existing measures in MS that fall within the scope of Article 12.

CA participants indicated that most Member States intend to implement the first option in Article 12 – "a range of instruments and policies to promote behavioural change" - and to a large extent they will extend existing measures and programmes. According to the CA questionnaire on that topic, only 11 MS aim to develop a new national strategy to fulfil the requirements in the Directive while most MS plan to use information measures, subsidies and fiscal incentives.

There are many examples of existing measures in MS, which indicates that there is a lot going on in the field of energy efficiency in the EU Member States. Most countries are ambitious when trying to reach the EU 2020 goals and the list of (more or less) successful projects, policies or instruments is long.

Lessons learnt from the presentations and discussions at the plenary meeting are that achieving a behavioural change requires deep insight into consumers. It is also essential to communicate the right message.

A recommendation to MS is that, when designing an information campaign, the message must be very carefully chosen and adapted to the specific target group. There might be a lack of interest in energy consumption amongst the target group for Article 12 (households, SMEs and organisations); this must be taken into account and the message should try to spur curiosity rather than to provoke guilt.

It is difficult to prove the causal relationship between an information campaign and behavioural change. This topic is also relevant to EED Article 7 and how to account for the savings from soft measures.

Only a handful Member States plan to implement option b) in Article 12 – "ways and means to engage consumers and consumer organisations during the roll-out of smart meters". However, there was significant interest in this topic at the plenary meeting and it seems that many MS find this option interesting and a possible area for action in the future.

Smart meters can create energy savings for households but there is a risk that smart meters and related services raise most interest among people with high levels of experimentalism and expertise. The business case for "smart" energy services might take longer to mature.

A recommendation is that Member States should follow the example of countries that have chosen to link information measures to the roll-out of smart meters and plan for communications whilst planning for roll-out.

Several barriers to behavioural change were identified during the plenary session; these are listed below:

- Awareness
- Lack of interest
- Lack of money
- Limited financial resources
- Different messages for different target groups
- SMEs have other interests than energy efficiency
- Hard to get the right balance between local and national actions
- Pricing structure/fixed tariffs
- Evaluation – measuring impacts

Good practice examples

MKB [SME] Green Deal in the Netherlands.

Green Deal supports initiatives making progress towards a sustainable economy by identifying and solving barriers and by generating awareness for the potential of energy efficiency in SMEs. The voluntary scheme has been very successful and the only drawback was that the programme became over-subscribed.

Energy efficiency improvements in Norway.

In Norway, Enova is responsible for an Energy fund which is financed by a levy on the electricity grid tariff and through allocations from the state budget. Through the fund there are measures aimed at small energy customers such as:

- Support scheme for private households
- Support scheme for SMEs
- Support scheme for building owners
- Advisory and information work

Supporting efficient use of energy in Poland by the NFEP&WM.

In Poland, a national fund supports several programmes aimed at increased energy efficiency. Education and promotion of energy efficiency towards enterprises, NGOs, local authorities, universities and other actors are part of the programme.

Further examples of good practice can be found at:

www.ca-eed.eu/good-practices/member-state-presentations/consumer-information/policies-and-national-strategies-to-promote-behavioural-change

4 Designing measures for behavioural change

The purpose of this topic was to provide insights related to the design of measures for behavioural change based on research in the field, ongoing work in EU and international organisations and experiences in Member States. In addition, the issue of measuring energy savings from soft measures was discussed in a joint working group with "National Energy Efficiency Action Plans" and "Energy Efficiency Obligation Schemes".

The purpose of this topic was to provide insights into the design of measures for behavioural change related to EED Articles 12 and 17, based on a brief literature study of existing research and work in an international forum.

The report that was prepared within the topic concentrates on a brief literature study of relevant research and programmes in the field of designing measures for behavioural change. The report does not offer an exhaustive nor scientifically complete study of the field. However, it gives some ideas and insights to policy makers in energy who do not deal with behavioural issues on a daily basis.

See also www.ca-eed.eu/good-practices/member-state-presentations/consumer-information/designing-measures-for-behavioural-change/designing-measures-for-behavioural-change-literature-study

Behavioural measures, often seen as soft measures, seem to be challenging - even complex - to plan and evaluate, and the results are often difficult to quantify in kWh of energy savings.

Recognising the importance of social context and social practices is a must in order to successfully design and implement behavioural measures. Different approaches and viewpoints (such as sociological, physiological, economical) are needed in this work.

When designing projects primarily affecting behaviour change, the planning phase is crucial. It is important to understand the whole system, what the key problem is and which factors will make things happen.

Evaluation is a learning process

A concern related to the implementation of the Energy Efficiency Directive is how to measure savings in energy units from measures for behavioural change. Only about one third of Member States have calculated the savings from soft measures.

As regards other ways of evaluating measures for behavioural change, only eight Member States indicated that they have evaluated measures for behavioural change in qualitative ways. It was concluded in the discussion that it is important to perform qualitative analysis of measures for behavioural change, but that the task is not easy and that evaluation is a continuous learning process. The evaluation must be an integral part of the design of a measure.

Finding ways of evaluating soft measures that are not solely focused on the calculation of energy savings is important for the continued success of the different measures and programmes, to improve the quality, justify continued funding, and disseminate the results. Sharing experiences on the planning and evaluation of soft measures is important.

Focus on multiple benefits from energy efficiency

When designing a measure for behavioural change it is important to identify and recognise the multiple benefits of energy efficiency such as health, well-being, convenience and other aspects (Figure 1).

Figure 1. Energy Efficiency Generates Variety of Benefits (IEA 2014)

These aspects were raised by the IEA as well as several examples of successful measures from both EU and non-EU countries.

See also www.ca-eed.eu/good-practices/member-state-presentations/consumer-information/designing-measures-for-behavioural-change/scaling-up-ee-through-behaviour-change-iea

Keep the message simple

It is important to keep the message simple and to clearly identify the target group and what the drivers and motivating factors for this target group are.

Use existing tools

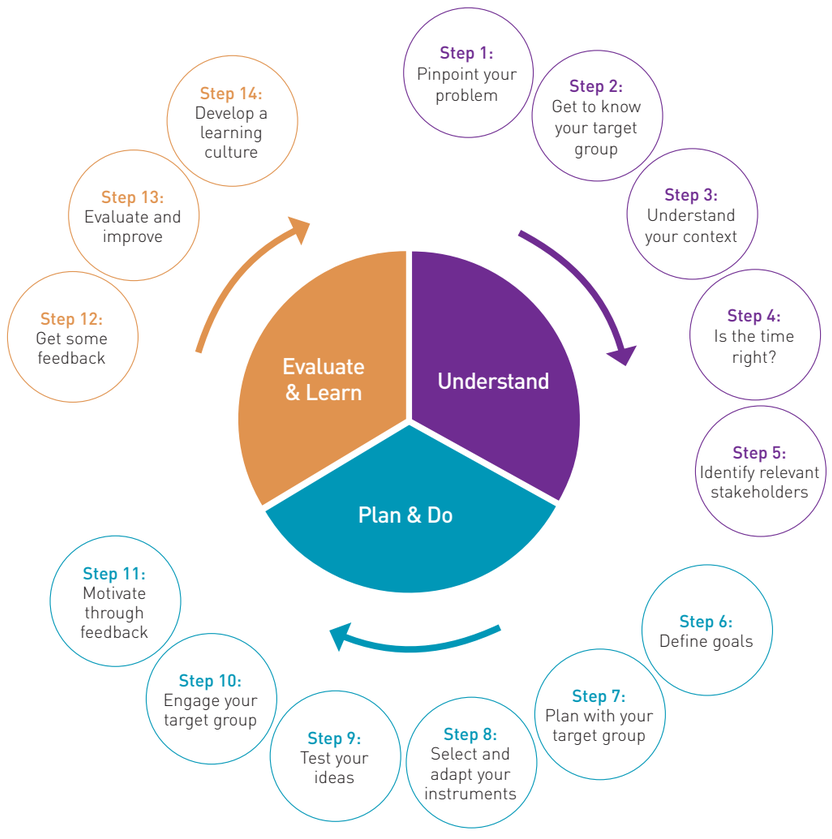
Different tools are available for programme managers in the field of designing measures for behavioural change, and managers are encouraged to put them into use with an open-minded attitude.

One example of such a tool is the "Changing behaviour toolkit". The toolkit offers a step-by-step guide with advice and tools for preparing, designing and evaluating energy saving projects. The toolkit contains three parts:

- Understand
- Plan & Do
- Evaluate & Learn

Correspondingly, the three parts contain several steps (figure 2):

Figure 2. The toolkit offers the step-by-step guide advice and tools for preparing, designing and evaluating your energy saving project www.mechanisms.energychange.info/



Good practice example

Removing barriers to energy efficiency in Croatia

Croatia presented experiences from an information campaign for promoting energy efficiency, which targeted all citizens. The aim of the campaign was to raise awareness and drive behavioural change towards more energy efficient choices and decisions. The campaign was run in the period 2007-2010; it was extended until 2013 but with reduced intensity. It was a part of the huge project "Removing barriers to energy efficiency in Croatia" led by UNDP. There were no energy savings assigned to the campaign, but subsequent yearly public opinion polls were performed (with the same questions asked each time). The results of these polls indicated that the campaign has achieved its aims – energy efficiency has become 'hot' topic in the public discourse and the level of citizens' awareness has increased.

See also www.ca-eed.eu/good-practices/good-practice-factsheets/consumer-information/consumer-information-energy-efficiency-information-campaign-croatia

Concluding remarks

Certification, accreditation and qualification of energy service providers is an area which is under development in the Member States and where the CA EED can bring added value by sharing best practices from existing certification, accreditation and qualification schemes as well as on relevant training programmes.

The design and evaluation of measures for behavioural change for small energy consumers such as households and SMEs is a complex topic which goes beyond the field of energy efficiency because it involves findings from sociology, psychology and other disciplines. The CA EED has an added value in helping Member States navigate these fields by providing examples of tools for the design of measures and by facilitating the exchange of experiences between Member States.

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The Concerted Action for the Energy Efficiency Directive (CA EED) was launched by Intelligent Energy Europe (IEE) in spring 2013 to provide a structured framework for the exchange of information between the 28 Member States and Norway during their implementation of the Energy Efficiency Directive (EED).

For further information please visit **www.ca-eed.eu**
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